

S17 9	0	graham.in. and "enhanced system for construction of adenovirus vectors"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/12/02 17:29
S18 1	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/12/02 17:29
S18 2	2	"6221588".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/12/02 17:29
S18 3	2082	"genome analysis"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/12/02 17:29
S18 5	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/12/02 17:29
S18 6	2	"5316931".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/12/02 17:29
S18 7	2	"6521602".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S18 8	25030	lox or loxp or loxp511 or att or attr or attb or frt or recombinase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S18 9	237688	hiv or aids	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S19 0	7228	(lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S19 1	36004	"second arm"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S19 2	3706	((lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)) and "selectable marker"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31

S19 3	2664	((((lox or loxp or loxp511 or att or attb or attc or frt or recombinase) and (hiv or aids)) and "selectable marker") and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S19 4	174	"LOX site"	USPAT	OR	OFF	2005/03/08 11:31
S19 5	1865556	("LOX site" and "homologous recombination") and vector system	USPAT	OR	OFF	2005/03/08 11:31
S19 6	0	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "yeast shuttle vector"	USPAT	OR	OFF	2005/03/08 11:31
S19 7	8462	"shuttle vector" or "binary vector"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S19 8	3531	("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S19 9	1138	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 0	7300365	s (("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 1	181	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination") and lox) and "shuttle vector"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 2	0	((((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination") and lox) and "shuttle vector") and "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 3	169766	Virus or viral	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 4	17274	(Virus or viral) WITH target	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31

S20 5	3616	((Virus or viral) WITH target) and (lox or loxp or loxp511 or att or attr or attb or frt or recombinase)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 6	4435	((Virus or viral) WITH target) WITH DNA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 7	3066	(("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 8	137558	(("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) WITH virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S20 9	541	"Shuttle vector" WITH viral	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 0	29	"Shuttle vector" WITH "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 1	645	"Shuttle vector" SAME "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 2	642	("Shuttle vector" SAME "viral DNA") and recombination	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 3	0	((Virus or viral) WITH target) and "6063627".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 4	29819	viral with DNA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 5	6137	DNA WITH extract	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 6	59	(DNA WITH extract) SAME adenovirus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31

S21 7	1200	"shuttle vector" and "homologous recombination" and "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 8	23	(lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and "second arm"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S21 9	44	"second arm" and "selectable marker"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S22 0	136	"LOX site" and "homologous recombination"	USPAT	OR	OFF	2005/03/08 11:31
S22 1	8	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and "selectable marker") and ("binary vector" or "hybrid vector" or "dual vector")	USPAT	OR	OFF	2005/03/08 11:31
S22 2	35	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and (yeast WITH bacteria)	USPAT	OR	OFF	2005/03/08 11:31
S22 3	1	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and "two selectable markers"	USPAT	OR	OFF	2005/03/08 11:31
S22 4	3	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and (yeast WITH bacteria) and "hybrid vector"	USPAT	OR	OFF	2005/03/08 11:31
S22 5	2	"5597719".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S22 6	2	"5262308".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S22 7	71	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and "selectable marker"	USPAT	OR	OFF	2005/03/08 11:31

S22 8	35	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "shuttle vector"	USPAT	OR	OFF	2005/03/08 11:31
S22 9	33	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "shuttle vector") and yeast	USPAT	OR	OFF	2005/03/08 11:31
S23 0	19	(((((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "shuttle vector") and yeast) and ((yeast) WITH (bacteria)))	USPAT	OR	OFF	2005/03/08 11:31
S23 1	87	("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")	USPAT	OR	OFF	2005/03/08 11:31
S23 2	82	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and ((viral DNA) WITH (homologous recombination)))	USPAT	OR	OFF	2005/03/08 11:31
S23 3	2027	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S23 4	211	(((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination") and lox	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:31
S23 5	2	"6221588".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S23 6	2	"5866404".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S23 7	275	((("Virus or viral) WITH target) and (lox or loxp or loxp511 or att or attr or attb or frt or recombinase)) and ((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S23 8	59	((Virus or viral) WITH target) WITH DNA) and (("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S23 9	2	"5744336".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 0	246	"Shuttle vector" WITH virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 1	629	((("Shuttle vector" SAME "viral DNA") and recombination) and homologous	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 2	2	"6063627".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 3	1	(viral with DNA) and "6063627". pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 4	2	"5646037".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 5	5	((DNA WITH extract) SAME adenovirus) and "shuttle vector"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 6	214	("shuttle vector" and "homologous recombination" and "viral DNA") and (((loxp or loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)) and "selectable marker") and "homologous recombination")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 7	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 8	2	"6379943".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S24 9	1643	graham and "adenovirus vectors"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S25 0	21737	graham.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 1	0	graham.in. and "enhanced system for construction of adenovirus vectors"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 2	31	graham.in. and "ADENOVIRUS VECTORS"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 3	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 4	2	"6221588".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 5	2264	"genome analysis"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 6	2264	"genome analysis"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 7	1	"genome analysis" and bio-informatics	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 8	8869	database WITH comparison	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S25 9	189	"genome analysis" and (database WITH comparison)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 0	7657	snyder.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 1	188792	snyder.in. and factor VIII	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S26 2	17	snyder.in. and "factor VIII"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 3	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 4	2736	shao.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 5	116	shao.in. and "organic solvent"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 6	9	(shao.in. and "organic solvent") and "nucleic acids"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 7	43	muecher.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 8	2	muecher.in. and "genomic DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S26 9	103	ASAE.as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 0	0	ASAE.as. and "aqueous solution"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 1	0	ASAE.as. and DNA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 2	151737	asahi.as.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 3	533	asahi.as. and DNA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S27 4	49	(asahi.as. and DNA) and "aqueous solution"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 5	13	((asahi.as. and DNA) and "aqueous solution") and "organic solvent"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 6	2	"5316931".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 7	6257	"shuttle vector" or "shuttle plasmid"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 8	25030	(lox or loxp or loxp511 or att or attr or attb or frt or recombinase)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S27 9	24033	selection WITH marker	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 0	26249	"selectable marker"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 1	169766	viral or virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 2	781	S277 and S278 and S279 and S281	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 3	529	S282 and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 4	56625	bacteria and yeast	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 5	492	S283 and S284	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S28 6	31374	"circularization" or "cyclization" or cyclize	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 7	101	S285 and S286	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 8	4756	recombinase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S28 9	34	S287 and S288	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 0	25625	(lox or loxp or loxp511 or att or attr or attb or frt or recombinase or flip or att)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 1	1002	S277 and S290 and S280 and S281	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 2	666	S291 and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 3	607	S284 and S292	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 4	130	S286 and S293	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 5	38	S294 and S288	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 6	38	S294 and S288	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 7	25030	lox or loxp or loxp511 or att or attr or attb or frt or recombinase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S29 8	237688	hiv or aids	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S29 9	7228	(lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 0	36004	"second arm"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 1	3706	((lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)) and "selectable marker"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 2	2664	((((lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)) and "selectable marker") and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 3	174	"LOX site"	USPAT	OR	OFF	2005/03/08 11:32
S30 4	1865556	("LOX site" and "homologous recombination") and vector system	USPAT	OR	OFF	2005/03/08 11:32
S30 5	0	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and "selectable marker") and "yeast shuttle vector"	USPAT	OR	OFF	2005/03/08 11:32
S30 6	8462	"shuttle vector" or "binary vector"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 7	3531	("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 8	1138	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S30 9	7300365	s (("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S31 0	181	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination") and lox) and "shuttle vector"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 1	0	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination") and lox) and "shuttle vector") and "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 2	169766	Virus or viral	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 3	17274	(Virus or viral) WITH target	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 4	3616	((Virus or viral) WITH target) and (lox or loxp or loxp511 or att or attr or attb or frt or recombinase)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 5	4435	((Virus or viral) WITH target) WITH DNA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 6	3066	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 7	137558	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) VITH virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 8	541	"Shuttle vector" WITH viral	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S31 9	29	"Shuttle vector" WITH "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 0	645	"Shuttle vector" SAME "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 1	642	("Shuttle vector" SAME "viral DNA") and recombination	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S32 2	0	((Virus or viral) WITH target) and "6063627".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 3	29819	viral with DNA	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 4	6137	DNA WITH extract	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 5	59	(DNA WITH extract) SAME adenovirus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 6	1200	"shuttle vector" and "homologous recombination" and "viral DNA"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 7	1643	graham and "adenovirus vectors"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 8	21737	graham.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S32 9	0	graham.in. and "enhanced system for construction of adenovirus vectors"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S33 0	2264	"genome analysis"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S33 1	1	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system"))) and "two selectable markers"	USPAT	OR	OFF	2005/03/08 11:32
S33 2	1	(viral with DNA) and "6063627".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S33 3	2	"6521602".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S33 4	23	(lox or loxp or loxp511 or att or attr or attb or frt or recombinase) and "second arm"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S33 5	44	"second arm" and "selectable marker"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S33 6	8	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and ("binary vector" or "hybrid vector" or "dual vector")	USPAT	OR	OFF	2005/03/08 11:32
S33 7	35	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and (yeast WITH bacteria)	USPAT	OR	OFF	2005/03/08 11:32
S33 8	3	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and (yeast WITH bacteria) and "hybrid vector"	USPAT	OR	OFF	2005/03/08 11:32
S33 9	2	"5597719".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S34 0	2	"5262308".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S34 1	71	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker"	USPAT	OR	OFF	2005/03/08 11:32
S34 2	35	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "shuttle vector"	USPAT	OR	OFF	2005/03/08 11:32
S34 3	33	(((((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "shuttle vector") and yeast	USPAT	OR	OFF	2005/03/08 11:32

S34 4	19	(((((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and "selectable marker") and "shuttle vector") and yeast) and ((yeast) WITH (bacteria))	USPAT	OR	OFF	2005/03/08 11:32
S34 5	87	("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")	USPAT	OR	OFF	2005/03/08 11:32
S34 6	82	((("LOX site" and "homologous recombination") and ("vector system" or "expression system" or "cloning system")) and ((viral DNA) WITH (homologous recombination))	USPAT	OR	OFF	2005/03/08 11:32
S34 7	2	"6221588".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S34 8	2	"5866404".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S34 9	59	((((Virus or viral) WITH target) WITH DNA) and (("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 0	2	"5744336".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 1	2	"6063627".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 2	2	"5646037".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 3	5	((DNA WITH extract) SAME adenovirus) and "shuttle vector"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 4	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S35 5	2	"6379943".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 6	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 7	2	"6221588".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 8	2	"5348886".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S35 9	2	"5316931".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S36 0	136	"LOX site" and "homologous recombination"	USPAT	OR	OFF	2005/03/08 11:32
S36 1	214	("shuttle vector" and "homologous recombination" and "viral DNA") and (((loxp or loxp511 or att or attr or attb or frt or recombinase) and (hiv or aids)) and "selectable marker") and "homologous recombination")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S36 2	211	(("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination") and lox	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S36 3	275	((Virus or viral) WITH target) and (lox or loxp or loxp511 or att or attr or attb or frt or recombinase)) and ("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria)))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S36 4	246	"Shuttle vector" WITH virus	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S36 5	629	("Shuttle vector" SAME "viral DNA") and recombination) and homologous	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32

S36 6	2027	((("shuttle vector" or "binary vector") and ((yeast) WITH (bacterial or bacteria))) and "homologous recombination"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:32
S36 7	2	"6828093".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:37
S36 8	1	S367 and (adenovirus or pox or papova or papilloma or herpes or adeno)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/03/08 11:38

FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 14:01:04 ON 08 MAR 2005

L1 12346 S MENDEZ?/AU OR FINER?/AU
L2 6260 S HYBRID (S) (VECTOR OR PLASMID OR CONSTRUCT)
L3 446097 S MARKER OR SELECTABLE
L4 0 S L1 AND L2 AND L3
L5 4 S L1 AND L2
L6 4 DUP REM L5 (0 DUPLICATES REMOVED)
L7 176872 S ADENOVIRUS OR AAV OR "ADENO ASSOCIATED" OR POX OR PAPOVA OR P
L8 56 S L7 AND L1
L9 41 S L8 NOT PY>=2000
L10 30 DUP REM L9 (11 DUPLICATES REMOVED)
L11 19665 S ATTT OR TN7 OR FLP OR LOX OR CRE OR CIRCULARIZATION
L12 23610 S COSMID OR BACMID OR YAC
L13 99 S L12 AND L11
L14 14 S L13 AND L3
L15 9 S L14 NOT PY>=2000
L16 0 S L15 AND L7
L17 5 DUP REM L15 (4 DUPLICATES REMOVED)
L18 225 S L12 AND L7
L19 18 S L18 AND L3
L20 17 S L19 NOT PY>=2000
L21 9 DUP REM L20 (8 DUPLICATES REMOVED)

=>

L17 ANSWER 1 OF 5 MEDLINE on STN
 ACCESSION NUMBER: 1999336017 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10407679
 TITLE: pSURF-2, a modified BAC vector for selective **YAC** cloning and functional analysis.
 AUTHOR: Boyd A C; Davidson H; Stevenson B; McLachlan G; Davidson-Smith H; Porteous D J
 CORPORATE SOURCE: MRC Human Genetics Unit, Edinburgh, Scotland, UK.. chrisb@hgu.mrc.ac.uk
 SOURCE: BioTechniques, (1999 Jul) 27 (1) 164-70, 172, 175. Journal code: 8306785. ISSN: 0736-6205.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199909
 ENTRY DATE: Entered STN: 19990913
 Last Updated on STN: 19990913
 Entered Medline: 19990901

AB A modified bacterial artificial chromosome (BAC) vector, pSURF-2, adapted for the selective subcloning of yeast artificial chromosome (**YAC**) sequences was constructed. DH10B-U, a pyrF derivative of the highly transformable E. coli strain DH10B was also constructed and used for the detection of Ura⁺ recombinants carrying DNA linked to **YAC** right arms. The vector's properties were illustrated in two main ways. (i) An intact 25-kb **YAC** containing a mouse tyrosinase minigene was cloned into pSURF-2. Appropriately spliced tyrosinase RNA was detected by reverse transcription (RT)-PCR in extracts of cells transiently lipofected with the cloned **YAC**. (ii) Cells expressing human cystic fibrosis transmembrane conductance regulator (CFTR) from an integrated pSURF-2 recombinant containing a cDNA expression cassette were selected using the hygromycin-resistance (HyTK) **marker** of the vector and characterized by RT-PCR and immunoprecipitation. The unique I-SceI site and HyTK **marker** of pSURF-2 are designed to facilitate subsequent functional studies of cloned DNA.

L17 ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
 ACCESSION NUMBER: 1998:111300 BIOSIS
 DOCUMENT NUMBER: PREV199800111300
 TITLE: Modification of BACs allowing for Neo resistance and GFP selection using **Cre** mediated recombination.
 AUTHOR(S): Kim, S. Y.; Horrigan, S. K.; Arbieva, Z. H.; Westbrook, C. A.
 CORPORATE SOURCE: Univ. Illinois at Chicago, Chicago, IL, USA
 SOURCE: American Journal of Human Genetics, (Oct., 1997) Vol. 61, No. 4 SUPPL., pp. A237. print.
 Meeting Info.: 47th Annual Meeting of the American Society of Human Genetics. Baltimore, Maryland, USA. October 28-November 1, 1997.
 CODEN: AJHGAG. ISSN: 0002-9297.
 DOCUMENT TYPE: Conference; (Meeting)
 Conference; Abstract; (Meeting Abstract)
 Conference; (Meeting Poster)
 LANGUAGE: English
 ENTRY DATE: Entered STN: 3 Mar 1998
 Last Updated on STN: 3 Mar 1998

L17 ANSWER 3 OF 5 MEDLINE on STN DUPLICATE 1
 ACCESSION NUMBER: 93323197 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 8392598
 TITLE: Efficient generation of infectious recombinant baculoviruses by site-specific transposon-mediated insertion of foreign genes into a baculovirus genome propagated in Escherichia coli.
 AUTHOR: Luckow V A; Lee S C; Barry G F; Olins P O
 CORPORATE SOURCE: Cellular and Molecular Biochemistry, Monsanto Corporate Research, Chesterfield, Missouri 63198.

SOURCE: Journal of virology, (1993 Aug) 67 (8) 4566-79.
Journal code: 0113724. ISSN: 0022-538X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199308
ENTRY DATE: Entered STN: 19930826
Last Updated on STN: 19990129
Entered Medline: 19930816

AB The construction and purification of recombinant baculovirus vectors for the expression of foreign genes in insect cells by standard transfection and plaque assay methods can take as long as 4 to 6 weeks. This period can be reduced to several days by using a novel baculovirus shuttle vector (**bacmid**) that can replicate in *Escherichia coli* as a plasmid and can infect susceptible lepidopteran insect cells. The **bacmid** is a recombinant virus that contains a mini-F replicon, a kanamycin resistance **marker**, and attTn7, the target site for the bacterial transposon **Tn7**. Expression cassettes comprising a baculovirus promoter driving expression of a foreign gene that is flanked by the left and right ends of **Tn7** can transpose to the target **bacmid** in *E. coli* when **Tn7** transposition functions are provided in trans by a helper plasmid. The foreign gene is expressed when the resulting composite **bacmid** is introduced into insect cells.

L17 ANSWER 4 OF 5 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 85038605 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6093122
TITLE: Directional cloning of DNA fragments at a large distance from an initial probe: a **circularization** method.
AUTHOR: Collins F S; Weissman S M
CONTRACT NUMBER: AM 33871 (NIADDK)
CA30938 (NCI)

SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1984 Nov) 81 (21) 6812-6.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198412
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19970203
Entered Medline: 19841219

AB The principle of a DNA cloning procedure that directionally generates genomic DNA fragments 50-2000 kilobases away from an initial probe is presented. The method depends on partial digestion of high molecular weight genomic DNA and subsequent ligation at very low concentration to generate covalent DNA circles. A library of the junction fragments from these circles can then be constructed. Biological or physical selection of the junction pieces can be achieved by incorporating a **marker** DNA fragment into the covalent circles. A 45-kilobase **cosmid** fragment has been successfully used to test the procedure. At appropriately low ligation concentrations (0.8 micrograms/ml), approximately equal to 90% of the ligated DNA is present as monomeric circles. Larger DNA fragments will require reducing the DNA concentration as the inverse square root of the DNA length. A suppressor tRNA gene has been tested as the **selectable marker** gene. Ligation of the digested circles into an amber-mutated lambda phage and propagation in a sup- host allows only the phage that contain junction fragments to produce plaques. Potential applications of this approach, such as mapping of complex genetic loci or moving from a linked gene toward a gene of interest, are presented and discussed.

L17 ANSWER 5 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1983:168238 BIOSIS
DOCUMENT NUMBER: PREV198375018238; BA75:18238
TITLE: THE USE OF **SELECTABLE** MARKERS FOR THE ISOLATION

OF PLANT DNA TUMOR DNA JUNCTION FRAGMENTS IN A
COSMID VECTOR.

AUTHOR(S): HOLSTERS M [Reprint author]; VILLARROEL R; VAN MONTAGU M;
SCHELL J
CORPORATE SOURCE: LAB GENET, RIJKSUNIV GENT, B-9000 GENT, BELG
SOURCE: Molecular and General Genetics, (1982) Vol. 185, No. 2, pp.
283-289.
CODEN: MGGEAE. ISSN: 0026-8925.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB DNA of the crown gall [*Agrobacterium tumefaciens*] tumor line W38T37::
Tn7-1 was partially digested with *Sau*3A to an average MW of 25 Md
[megadaltons], and ligated either directly or after size fractionation to
*Bam*HI cut **cosmid** pJC81 DNA. After in vitro packaging in phage
 λ particles and transduction to *Escherichia coli* HB101,
recombinants that expressed the **Tn7** coded resistances to
spectinomycin and trimethoprim were selected. The recombinant plasmids
thus isolated contained part or the whole of **Tn7** together with
adjacent T-DNA. Four independent, large clones are described, 3
containing the left border of the T-DNA, one containing the right border
and an intact copy of the **Tn7** transposon. In this case all the
Tn7 encoded genes were shown to have remained fully functional
since the reisolated **Tn7** was found to be capable of normal
transposition in *E. coli*. The T-DNA in the W38T37::**Tn7** tumor
line is flanked both to the left and to the right by highly AT-rich
repetitive plant sequences. These results further demonstrate that
foreign genes can be transferred, integrated and stably maintained in
chromosomes of plant cells without undergoing any observable
rearrangements. This method of **cosmid** cloning combined with
direct selection for the desired recombinant colonies is of general
application for the genomic cloning of transformed eukaryotic cells.

=>

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ACCESSION NUMBER: 1998264704 EMBASE
TITLE: Recurrent integration of papillomavirus DNA within the human 12q14-15 uterine breakpoint region in genital carcinomas.
AUTHOR: Lopez-Borges S.; Gallego M.I.; Lazo P.A.
CORPORATE SOURCE: P.A. Lazo, CBNF, Instituto de Salud Carlos III, 28220 Majadahonda, Spain. plazozbi@isciii.es
SOURCE: Genes Chromosomes and Cancer, (1998) 23/1 (55-60).
Refs: 51
ISSN: 1045-2257 CODEN: GCCAES
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
016 Cancer
022 Human Genetics
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Genital carcinomas are associated with human papillomaviruses, and the viral DNA is frequently integrated in the host cell genome. Recurrent chromosomal alterations are genetic markers for specific tumor phenotypes. To demonstrate that papillomavirus DNA integration is indeed a recurrent chromosomal aberration, we mapped two independent papillomavirus integration sites in the human 12q14-15 region, one containing HPV16 DNA and the other HPV18 DNA. The two HPV integration sites map approximately 10 kbp from each other within the **cosmid** LLNL12NC01-196EI clone. The integration site corresponding to HPV16 DNA in SK-v cells is proximal to the 5' end of a DNA segment known to be rearranged by integration of HPV18 DNA in another cervical carcinoma cell line, SW756. Both integrations are located in the PAL2 locus within the uterine leiomyoma cluster region of translocation.

L21 ANSWER 2 OF 9 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
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ACCESSION NUMBER: 97211326 EMBASE
DOCUMENT NUMBER: 1997211326
TITLE: Complex genomic rearrangement within the 12q15 multiple aberration region induced by integrated human papillomavirus 18 in a cervical carcinoma cell line.
AUTHOR: Gallego M.I.; Schoenmakers E.F.P.M.; Van den Ven W.J.M.; Lazo P.A.
CORPORATE SOURCE: P.A. Lazo, Centro Nacional Biologia Fundamental, Instituto Salud Carlos III, 28220 Majadahonda, Madrid, Spain
SOURCE: Molecular Carcinogenesis, (1997) 19/2 (114-121).
Refs: 59
ISSN: 0899-1987 CODEN: MOCAE8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
010 Obstetrics and Gynecology
016 Cancer
022 Human Genetics
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Human papillomavirus (HPV) DNA is integrated into the host genome in cervical cancer. The cervical carcinoma cell line SW756 has integrated HPV-18 DNA in chromosome region 12q15, in the papillomavirus-associated locus-2 (PAL2). By polymerase chain reaction and hybridization of an arrayed **cosmid** library with oligonucleotides from the rearranged allele, we determined the pre-integration germline structure of the region. PAL2 was located approximately 10 kb from sequence-tagged site **marker** U27131, which was the **marker** most proximal to the 3' flank of the integrated viral DNA. HPV-18 DNA integration induced a complex genomic rearrangement resulting in inversion and deletion of cellular sequences. PAL2 is within the multiple aberration region, which has been shown to be affected in several types of benign tumors of

mesenchymal origin. The integrated viral DNA was located 50 kb from a CpG island and 150 kb upstream of the high-mobility group I-C (HMGI-C) gene. The HMGI-C gene and the integrated HPV-18 DNA had opposite transcriptional orientations. No overexpression or altered message of the HMGI-C gene was detected in three cervical carcinoma cell lines. The integrated viral DNA did not affect any other known gene in the region and may be a **marker** for an unknown gene associated with malignant tumor phenotypes.

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ACCESSION NUMBER: 94252329 EMBASE
DOCUMENT NUMBER: 1994252329
TITLE: Channel catfish herpesvirus (CCV) encodes a functional thymidine kinase gene: Elucidation of a point mutation that confers resistance to Ara-T.
AUTHOR: Hanson L.A.; Kousoulas K.G.; Thune R.L.
CORPORATE SOURCE: College of Veterinary Medicine, Mississippi State University, P.O. Box 9825, Mississippi State, MS 39762, United States
SOURCE: Virology, (1994) 202/2 (659-664).
ISSN: 0042-6822 CODEN: VIRLAX
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The channel catfish herpesvirus (CCV) thymidine kinase (TK) gene was mapped on the CCV genome by **marker** rescue analysis using a TK-deficient channel catfish ovary cell line (CCO), a TK-negative CCV mutant, and a panel of cloned CCV genomic DNA fragments. The TK-deficient cell line (CCOBr) was isolated after repeated propagation of CCO cells in increasing concentrations of 5-bromo-2'-deoxyuridine. Infection of CCOBr cells with CCV produced high levels of TK activity. The TK- virus (CCVAr) was isolated after repeated propagation in the presence of the TK-activated antiherpetic agent, 1- β -D- arabinofuranosylthymine (Ara-T). A CCV genomic DNA library was constructed into **cosmid** pH7.9. **Marker** rescue analysis mapped the mutation within a 3.1-kb fragment located internal to the 18-kb repeat ends of the CCV genome. These genomic coordinates contained a putative TK gene identified by homology to other herpesvirus TK and cellular deoxycytidine kinase genes. DNA sequencing of the mapped coordinates identified the presence of a single mutation in the CCVAr mutant virus which resulted in a stop codon at amino acid position 97. These results functionally confirm that ORF 5 identified by Davison (Virology 186, 9-14, 1992) is the TK gene and show that CCV is amenable to **marker** rescue and **marker** transfer genetic analyses extensively used for investigations of the molecular biology of other herpesviruses.

L21 ANSWER 4 OF 9 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 90060817 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2531106
TITLE: Phage particle-mediated gene transfer of recombinant cosmids to cultured mammalian cells.
AUTHOR: Ishiura M; Ohashi H; Uchida T; Okada Y
CORPORATE SOURCE: National Institute for Basic Biology, Aichi, Japan.
SOURCE: Gene, (1989 Oct 30) 82 (2) 281-9.
Journal code: 7706761. ISSN: 0378-1119.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199001
ENTRY DATE: Entered STN: 19900328
Last Updated on STN: 19980206
Entered Medline: 19900102

AB An efficient procedure for the introduction of recombinant cosmids into

cultured mammalian cells consists of the following steps. Cosmids were packaged, in vitro, into lambda phage particles and transduced into Escherichia coli hosts lysogenized with thermo-inducible lambda c Its phage. The introduced cosmids were repackaged into phage particles in the thermo-induced hosts. The efficiency of such in vivo **cosmid** packaging was further improved by construction of pTC vectors that carried three cohesive end sites (cos) of phage lambda, arrayed in tandem. Two types of cosmids, in almost equal numbers (i.e., cosmids with one cos and cosmids with two cos), were obtained from a **cosmid** library constructed with pTC vectors. The efficiency of packaging in vivo of cosmids with two cos, was found to be 7-20 times higher than that of corresponding cosmids with only one cos. Use of a high-copy-number derivative of pTC1 further improved the phage yield by 20- to 30-fold. The packaged cosmids, which carried the thymidine kinase-encoding gene of **herpes** simplex virus type 1 as a selective **marker**, were introduced into mouse Ltk- cells with an efficiency of 10(-5), by the phage transfer method [Ishiura et al., Mol. Cell. Biol. 2 (1982) 607-616].

L21 ANSWER 5 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
 ACCESSION NUMBER: 1985:314991 BIOSIS
 DOCUMENT NUMBER: PREV198579094987; BA79:94987
 TITLE: A TRANSPOSABLE P VECTOR THAT CONFERS **SELECTABLE**
 G-418 RESISTANCE TO DROSOPHILA LARVAE.
 AUTHOR(S): STELLER H [Reprint author]; PIRROTTA V
 CORPORATE SOURCE: DEP BIOCHEM, UNIV CALIF AT BERKELEY, BERKELEY, CA 94720,
 USA
 SOURCE: EMBO (European Molecular Biology Organization) Journal,
 (1985) Vol. 4, No. 1, pp. 167-172.
 CODEN: EMJODG. ISSN: 0261-4189.
 DOCUMENT TYPE: Article
 FILE SEGMENT: BA
 LANGUAGE: ENGLISH

AB Drosophila larvae are rapidly killed by food containing the antibiotic G418 [O-2-amino-2,7-dideoxy- α -D-glycero-D-glucoheptopyranosyl-(1 \rightarrow 4)-O-[3-deoxy-4-C-methyl-3-methylamino- β -L-arabinopyranosyl-(1 \rightarrow 6)]-2-deoxy-D-streptamine]. The bacterial gene for neomycin resistance introduced in the genome by P-mediated transformation renders larvae resistant to G418 and able to grow to fertile adults. The neo gene transcribed from the **herpes** thymidine kinase promoter gives low levels of resistance but high levels can be obtained using the hsp70 heat-shock promoter. A vector was constructed for P-mediated transformation which uses this finding to allow dominant selection of transformed progeny. Features of this vector also facilitate cloning and allow the rapid recovery of the inserted transposon from transformed flies. A **cosmid** vector was constructed for P-mediated transformation that incorporates the hsp70-neo gene.

L21 ANSWER 6 OF 9 MEDLINE on STN DUPLICATE 2
 ACCESSION NUMBER: 85293220 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 2993649
 TITLE: Virus-induced modification of the host cell is required for expression of the bacterial chloramphenicol acetyltransferase gene controlled by a late **herpes** simplex virus promoter (VP5).
 AUTHOR: Costa R H; Draper K G; Devi-Rao G; Thompson R L; Wagner E K
 CONTRACT NUMBER: CA11861 (NCI)
 GM-07311 (NIGMS)
 SOURCE: Journal of virology, (1985 Oct) 56 (1) 19-30.
 Journal code: 0113724. ISSN: 0022-538X.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-M12474; GENBANK-M14095
 ENTRY MONTH: 198510
 ENTRY DATE: Entered STN: 19900320
 Last Updated on STN: 19980206

Entered Medline: 19851022

AB The requirements for expression of genes under the control of early (alkaline exonuclease) and late (VP5) **herpes** simplex virus type 1 (HSV-1) gene promoters were examined in a transient expression assay, using the bacterial chloramphenicol acetyltransferase gene as an expression **marker**. Both promoters were induced, resulting in the production of high levels of the enzyme upon low-multiplicity infection by HSV-1. S1 nuclease analysis of hybrids between RNA isolated from infected cells containing HSV-1 promoter constructs and **marker** gene DNA demonstrated normal transcriptional initiation of the **marker** gene directed by the viral promoters. Viral DNA sequences no more than 125 bases 5' of the putative transcriptional cap site were sufficient for maximum activity of the late promoter. In contrast to expression controlled by the early gene, the late promoter was not active at a measurable level in uninfected cells until DNA sequences between 75 and 125 bases 5' of the transcriptional cap site were deleted. Cotransfection of cells with the expression **marker** controlled by HSV promoters and a **cosmid** containing HSV alpha (immediate-early) genes indicated that full expression of both early and late promoters requires the same virus-induced host cell modifications. Inhibition of viral DNA synthesis results in an increased rate of transient expression of **marker** genes under control of either early or late promoters in contrast to the situation in normal virus infection. These data provide evidence that the normal course of expression of late HSV genes involves negative modulation of potentially active promoters in the infected cell.

L21 ANSWER 7 OF 9 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1984:322777 BIOSIS
DOCUMENT NUMBER: PREV198478059257; BA78:59257
TITLE: NEW **COSMID** VECTORS DEVELOPED FOR EUKARYOTIC DNA CLONING.
AUTHOR(S): BRADY G [Reprint author]; JANTZEN H M; BERNARD H U; BROWN R; HASHIMOTO-GOTOH T; SCHUETZ G
CORPORATE SOURCE: DEP BASIC RESEARCH, RESEARCH AND DEVELOPMENT LAB, HOECHST JAPAN LIMITED, MINAMI-DAI 1-3-2, KAWAGOE, SAITAMA, JAPAN
SOURCE: Gene (Amsterdam), (1984) Vol. 27, No. 2, pp. 223-232.
CODEN: GENED6. ISSN: 0378-1119.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB A series of ColE1 and pSC101 **cosmid** vectors were constructed suitable for cloning large stretches of DNA. All contain a single BamHI site allowing cloning of Sau3A, MboI, BglII, BclI and BamHI-generated fragments. These vectors have the following characteristics: they are relatively small (1.7-3.4 kb [kilobase]); the BamHI cloning site is flanked by restriction enzyme sites enabling direct cloning of unfractionated insert DNA without generating multiple insert or vector ligation products; 2 vectors (pHSG272 and pHSG274) contain a hybrid Tn5 KmR/G418R gene which is **selectable** in both prokaryotic and eukaryotic cells, making them suitable for transferring DNA into eukaryotic cells, and the different prokaryotic **selectable** markers available in the other vectors described facilitate **cosmid** rescue of the transferred DNA sequences from the eukaryotic cell: CmR, ApR, KmR, (pHSG429), CmR, (pHSG439), colicin E1 immunity (pHSG250), the **cosmid** pHSG272 was used successfully to construct a shuttle vector based on the BPVI [bovine **papilloma** virus] replicon.

L21 ANSWER 8 OF 9 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 84186955 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6201558
TITLE: A method for testing the specificity of influenza A virus-reactive memory cytotoxic T lymphocyte (CTL) clones in limiting dilution cultures.
AUTHOR: Kees U; Kynast G; Weber E; Krammer P H
SOURCE: Journal of immunological methods, (1984 Apr 27) 69 (2) 215-27.
Journal code: 1305440. ISSN: 0022-1759.

PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198406
ENTRY DATE: Entered STN: 19900319
Last Updated on STN: 19970203
Entered Medline: 19840612

AB This paper describes a system for determining the frequency and fine specificity of influenza A virus-immune memory cytotoxic T cell (CTL) clones from limiting dilution (LD) microcultures. We found that such experiments can only be performed (1) by analyzing the clonal response of CTL from wells of replica plates containing fractions of one original plate, (2) when it has been ascertained that splitting is possible at the clonal level, and that each fraction of a microculture well gives an identical response on target cells infected with the stimulating virus. With these requirements fulfilled we found that short term CTL clones from LD microcultures from influenza A virus (A/X-31)-immune mice (C57BL/6) occur at a frequency of $f = 1:546$ to $f = 1:6303$. The effector cells carry the **Lyt-2.2 marker** and are specific for target cells infected with the immunizing virus (influenza virus A/X-31). They do not lyse NDV (Newcastle disease virus) or HSV (**herpes** simplex virus)-infected or NK (**YAC**) target cells.

L21 ANSWER 9 OF 9 MEDLINE on STN DUPLICATE 4
ACCESSION NUMBER: 84159496 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6323255
TITLE: Double cos site vectors: simplified **cosmid** cloning.
AUTHOR: Bates P F; Swift R A
CONTRACT NUMBER: 2-507 RR07049-15 (NCRR)
SOURCE: Gene, (1983 Dec) 26 (2-3) 137-46.
Journal code: 7706761. ISSN: 0378-1119.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198405
ENTRY DATE: Entered STN: 19900319
Last Updated on STN: 19970203
Entered Medline: 19840518

AB A new vector for construction of **cosmid** libraries is described. **Cosmid** c2XB contains restriction sites for use in the insertion of foreign DNA and two lambda cos sites separated by a blunt-end restriction site. The presence of two cos sites on a single plasmid eliminates the need to prepare two separate **cosmid** arms, and the internal blunt-end restriction site prevents **cosmid** concatemerization. Thus, a double restriction-enzyme digestion is sufficient to prepare the vector for subsequent ligation with DNA fragments which are dephosphorylated to prevent their self-ligation. The use of this vector system allows efficient **cosmid** cloning (1×10^5 colonies per micrograms insert DNA) and eliminates background due to vector self-ligation. Furthermore, the procedure is so rapid as to eliminate the need to amplify **cosmid** libraries for storage and reuse. Also described is a **cosmid** vector for use in construction of **cosmid** libraries which are to be introduced into cultured eukaryotic cells. This vector contains the **Herpes** simplex virus thymidine kinase (HSV tk) gene as a **selectable marker** and a retroviral long terminal repeat (LTR) region as an enhancer sequence.

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